

# Canary Wharf [UK]



**CANARY WHARF**  
LONDON

## Vision becoming reality in London's newest business district

With a footfall of over 1 million people per week, 80,000 daily staff, approximately 1750 security cameras controlled by approximately 300 security staff covering the 97 acre estate, Canary Wharf is the heart of London's economy and is a truly formidable affair and yet it still considers itself a 'work in progress'.

There are eight control rooms at Canary Wharf. The main one, the Estate Control Center (ECC) takes feeds from the other seven sites. In the unlikely event that anything hampers the operation of the ECC there is a back up site. With independent diesel generators, UPS power back up, the ECC is self sufficient for between 4 and 14 days, depending on the number of people inside. It's fair to say the Wharf is well prepared for anything.

The ECC, equipped with seven 67-inch high resolution Barco displays, is well hidden and protected. To reach it one must venture underground in to a three story vault that is behind 2 doors weighing in at over 1 ton in weight each, surrounded with substantially reinforced concrete walls, roof and is protected by Biometric finger print scanning. Within the ECC is the CCTV control room which, among other things, provides all the facilities for bronze, silver or gold emergency service command. There are approximately seven to eight operators on duty, 24 hours a day throughout the year. This comprises four to five operators, a supervisor and a manager. Staff work four 12-hour shifts per week.

**BARCO**

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*In design terms, Canary Wharf is one of the most highly specified urban areas in the world. For attention to detail both on the buildings and in the street scape, it is virtually impossible to find a contemporary comparison.*



### **Thriving living and working environment**

Canary Wharf is planned on a grand scale with meticulous attention to detail. The estate is so called because historically when used as active docks, it primarily received imports from the Canary Islands. To date, 14.1 million

square feet of modern office and retail space has been developed. The current development comprises of 33 office buildings, four retail centers, two conference and banqueting centers, two Docklands Light railway Stations, a London Underground station, landscaped grounds and five car parks.

### **Digital revolution**

Canary Wharf, was developed in phases over many years and has been through many cycles of technological changes. As such, new technologies are often deployed alongside older technologies as systems are migrated and upgraded from one to the other.

The CCTV system, for example, has grown from 600 cameras to over 1750 today and are currently undergoing the conversion from analog to digital video recording.

The cameras are situated both at street level and there is a small selection on the top of buildings. The reason for this is the extensive parks with their ample trees sometimes obscure the sightliness of some of the street level cameras when the trees are in full bloom.





### Control room design

All the interested parties had a say in the design of the control room from the security department, engineers, an architect plus consultants specializing in security and ergonomics. Emphasis was placed on creating a tidy, quiet and comfortable area in which people could work a 12-hour shift. Operators in the command centre are assigned zones to monitor and this is regularly changing to prevent any loss of attention.

There are no spot monitors on desks, each operator looks directly at the Barco 67-inch display for all monitoring. The operators also have three TFT displays each for controlling the CCTV system, linking into the integrated radio/telephony system and running a PC for email, event logging, and database queries to name just a few. The PCs themselves are located in the server room, a solution which eliminates the noise and heat generated by these devices.

**Bob Bartsch, Security Technical Operations Manager, Canary Wharf :**  
**The Barco monitors were one of the major impacts on the design of the control room. We did look at some other large screens when designing the control room but Barco were, by far, the best. “**

### Total control for 24/7 operations

On one side of the room there are five displays arranged in an arc, two on the other side and another two will be installed in the future, making for the unusual 360° layout.

The Barco displays are positioned at eye level so that when the operatives are in position, their eye line is right in to the middle of the screen, and without lifting their heads they can see all the images on the screen.

The circular design was the brainchild of the former head of security, Richard Flenley. Richard had the idea for a circular control room after visiting numerous other control rooms.

“This is the best way of doing it,” says Bob Bartsch, Security Technical Operations Manager, Canary Wharf Management Limited. “It gives the operators a line communication so they can talk to each other relatively easily. Then you have the inner circle which has an overview of what the operators are doing.”



*The Estate Control Centre is equipped with seven 67-inch high resolution Barco 24/7 rear-projection modules each connected via the Barco HYDRA giving total flexibility in image presentation.*

*Barco is unique in manufacturing the four main components of the iSURVEILLANCE solution - the display, controller, software and API/protocols for front end integration.*

One of the presets on the system enables an operator to select a camera to display as the central image with the system automatically selecting the 12 cameras nearest to that camera to display around it. This gives the operator a view of his target and the area immediately around it. For example, if the user selects a specific camera as the spot monitor (in the middle), the system will automatically update the 12 images surrounding the spot monitor with views from the adjacent cameras. This enables the operator to follow a person around the estate if necessary and provides a good contextual view.

Each Barco display, at 67", is large enough to accommodate one central image to use as a spot monitor and twelve images arranged around the outside of this. Operators have full control of the display screen via the touch-screen monitor and can select from a number of preset display templates. Barco's OVERVIEW series integrates cutting edge technology into display wall systems that are designed and optimized for use in a 24/7 mission critical environment.

All of the image data is composed on the display using Barco's HYDRA controller. As control centers, like Canary Wharf continue to become larger and more complex, a growing number of signals from a variety of sources need to be controlled. Barco's HYDRA gives unique possibilities to control up to 60 analog or digital inputs on one single display simultaneously. HYDRA is operated via a standard web browser and features advanced warnings and alarms.

Bob Bartsch, says the Barco monitors are far neater and more reliable than a bank of CRT monitors. "From an operational point of view, they are also easier on the eye. Within that 67-inch area you can see up to 16 images without having to move your head around," he says. "The Barco monitors were one of the major impacts on the design of the control room. We did look at some other large screens when we were designing the control room but Barco were, by far, the best."

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